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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): NGB-39565

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Signature _____

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Application Number	Filed
10/566,104	January 26, 2006

First Named Inventor: Kazufumi Mizasawa

Art Unit	Examiner
3661	Sze -Hon Kong

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- ☑ attorney or agent of record. Registration number 57076.
- ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

Brad C Spencer
Signature

Brad C. Spencer
Typed or printed name

216-579-1700
Telephone number

March 10, 2010
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of 1 forms are submitted.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Title	:	OPERATING ASSISTING SYSTEM AND OPERATING ASSISTING METHOD			
Appln. No.	:	10/566,104	Applicant	:	Kazufumi Mizusawa
Filed	:	January 26, 2006	Conf. No.	:	9571
Examiner	:	Kong, Sze-Hon	Art Unit	:	3661
Customer No.	:	52054	Docket No.	:	NGB-39565

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants request review of the final rejections of claims 1 and 4-6 set forth in an Office action dated December 14, 2009 (Paper No. 20091125). No amendments are being filed with this request. A Notice of Appeal accompanies this request.

The pending claims were submitted in Amendment "C" dated May 4, 2009 and were finally rejected under 35 U.S.C. 103(a) as being unpatentable over Kakinami (USPN 6,813,371) and Okamoto (6,587,760). See the Office action of December 14, 2009 at page 2.

Claim 1 is directed to a drive assisting apparatus that acquires an image around a vehicle using an on-vehicle camera and superimposes a travel predicted locus (e.g., a predicted path of travel) in the image. The travel predicted locus can assist a driver in maneuvering the vehicle, such as when backing into a parking space. The travel predicted locus is displayed from locus data stored in a data table, and the locus data is read out corresponding to a steering angle of a steering wheel. The locus data contains "locus display data" and "adjusting data." Because the on-vehicle camera may be misaligned when installed, the adjusting data is provided to correct for such misalignments.

Claim 1 recites both a "normal driving operation" and a preceding "setting operation." Values of adjusting data are calculated during the setting operation. Claim 1 specifically recites a drive assisting apparatus "wherein based upon a value of adjusting data of said locus data with respect to a typical steering angle, said display position adjusting amount setting means calculates, *during said setting operation*, values of adjusting data of said locus data with respect to *all of other steering angles*." During the subsequent normal driving operation, locus data corresponding to a detected steering angle is read out and a drive assisting image is produced based upon the adjusting data contained in the read locus data. In this way, during the prior setting operation, adjusting data can be determined for a typical steering angle and then calculated for all other steering angles based on the adjusting data for the typical steering angle. Then during the normal driving operation, the previously calculated adjusting data can be read out according to a detected steering angle, rather than calculated at that time.

Advantages provided by the claimed subject matter include predetermining the adjusting data for reading out during the subsequent driving operations, and calculating the adjusting data of other steering angles based upon a value of adjusting of a typical steering angle (e.g., rather than through separate calibration procedures for each steering angle).

The cited combination of references does not teach or otherwise render foreseeable, "wherein based upon a value of adjusting data of said locus data with respect to a typical steering angle, said display position adjusting amount setting means calculates, during said setting operation, values of adjusting data of said locus data with respect to all of other steering angles." The Examiner cites Kakinami for these limitations (see pages 2, 3 and 5 of the outstanding Office action). Kakinami states that in order to display a forecast vehicle travel path with precision, the camera has to be calibrated in view of its error when mounted (5:39-42).

Kakinami teaches a camera calibration procedure for adjusting for roll, tilt and pan angles of the camera (8:55-10:24). The calibration procedure occurs with the vehicle's wheels placed in preformed tire grooves (5:53-55). Therefore, the calibration occurs at a single steering angle. A forecasted vehicle travel path that is based on geometric calculations appears on a display screen after the calibration (5:30-35, 10:20-23).

Assume, *arguendo*, that Kakinami's calibration procedure corresponds to a "setting operation" as recited in claim 1. Nowhere does Kakinami teach that *during the calibration procedure* values of adjusting data with respect to all of other steering angles are calculated based upon a value of adjusting data with respect to a typical steering angle. In discussing the Kakinami reference at page 3, line 1, of the outstanding Office action, the Examiner asserts that "*after* calibration is completed having the adjusting data with respect to the steering angle, a typical steering angle, the adjusting amount of the locus data is incorporated into the calculation of the locus data with respect to all other steering angles." *After* calibration is completed, when geometric calculations are performed in Kakinami, would be during *a normal driving operation*, not "during said setting operation" (as recited in claim 1). Therefore, even if the Examiner's assertion is correct, it does not follow that Kakinami teaches calculating values of adjusting data with respect to all of other steering angles *during the setting operation*. The calculations with respect to "all other steering angles" referred to by the Examiner are part of geometric calculations that occur *after* calibration *during normal driving*.

To summarize, Kakinami teaches a calibration procedure that occurs at a single steering angle. After calibration, a forecast vehicle travel path is displayed by geometric calculations. Kakinami has no setting operation prior to a normal driving operation during which values of adjusting data with respect to all of other steering angles are calculated based upon a value of

adjusting data with respect to a typical steering angle. This deficiency in the teaching of Kakinami is not corrected by the addition of Okamoto.

Moreover, Kakinami performs a calibration of a camera for correcting a mounting error of the camera. That means a calibration device of Kakinami has the mounting error of the camera as a correction value. In detail, the calibration device calculates difference angles of a pan, a tilt and a roll of a mounting position with respect to a predicted mounting position (e.g., a designed value). On the other hand, in the present invention (see claim 5), an optimum locus data set is selected from a plurality of preset different locus data sets as to a pan angle, a roll angle or a tilt angle to calculate a mounting error of a camera.

A process after the above settings is different between the present invention and Kakinami. In Kakinami, the locus to be displayed is recalculated by using the mounting error as the correction value. The correction value indicates degrees of the mounting error of the camera. Therefore, the correction (the recalculation) is determined is determined one-on-one and there is no need to change the correction value in accordance with steering wheel degrees.

On the other hand, in the present invention, the locus data set corresponding to the mounting error of the camera is preliminarily held, and the correction of the mounting error of the camera is achieved by selecting the locus data set (see page 12, line 24 to page 13, line 17 of the application.) Since the number of the preliminarily held data sets is limited, when the selected locus data is displayed, the display position is adjusted in response to the steering wheel angle. As a result, the error is corrected while the number of data sets is limited. That means, a "correction value" in the present invention indicates a correction value of the display position. Therefore, it is required to change the adjustment value in response to the steering wheel angle (see page 9, lines 6 to 23 of the application).

In Kakinami, "an adjustment of a display position (to adjust a display position)" means a recalculation of the locus data based on the correction value of the mounting error of the camera. That means a change of a shape of the locus. On the other hand, in the present invention, "an adjustment of a display position (to adjust a display position)" means a change of a display position of the preliminarily held locus data with respect to the display. Especially, the form of the locus is not changed after the selected data set is determined.

In view of the differences between the cited references and the claimed subject matter, applicant respectfully requests that the rejection of claim 1 be withdrawn. Claims 2-5 depend from claim 1. The arguments provided above with respect to claim 1 also apply to claim 6, and applicant requests that the rejection of claim 6 be withdrawn.

Further, claims 1 and 2-5 are directed to the use of a data table containing both adjusting data and locus display data corresponding to steering angles in producing a drive assisting image. During the normal driving operation, the locus display data and adjusting data are read out of the data table according a detected steering angle. Neither cited reference discloses a data table, let alone a data table containing both locus display data and adjusting data.

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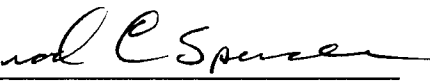
Respectfully submitted,
PEARNE & GORDON, LLP

By: 
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